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Devoted to Practical X-Ray Work and Allied Arts and Sciences.

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DR. J. N. SCOTT,
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434 and 435 New Ridge Building, Kansas City, Mo.

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SKIAGRAPHY IN ORAL AND DENTAL SURGERY.

BY WESTON A. PRICE, D.D.S., M. E.

Delivered with Stereoptican Views before the
Roentgen Society of the United States,
Grand Central Palace, New York City,
December 13, 1900.

There is no field of application in which the Roentgen Rays will bless so large a number of mankind as in dentistry.

The serious lessons and deformities of the teeth and oral cavity and adjacent parts are usually deep seated and their source and even location frequently entirely obscure. For example, what is the cause of this chronic empyemia of the antrum? The lady is about 70 and the case has had skillful treatment for a couple of years. You see quickly the cause in this lanternslide (Fig. 1.) It is a piece of a root partly perforating the antrum and which was buried deeply under the soft tissues. The Roentgen Rays have a much wider range of application in antrum troubles than has been recognized. This next case, (Fig. 2) is of special interest because a malpractice suit was brought against a dentist claiming that in extracting the badly decayed roots of a molar tooth the operator forced one of them through into the antrum causing an acute empyemia. This skiagraph shows clearly the antrum, but there is no root in it. This next slide, however, (Fig. 3) shows clearly the cause of the trouble which is the imperfect root filling in the

bicuspid. As you see the chamber from which the pulp of the tooth has been removed has not been filled to the apex of the root. This almost invariably develops an abscess, and which in this case, as frequently occurs, has broken into the antrum. All the surgeons in the audience know the necessity of draining the antrum if possible from its most dependent or lowest point. But how can this be determined clinically for the lowest point has not a universal or definite position? For example, in this case (Fig. 4) the lowest part of the floor of the antrum is between the first and second molars, but there is an anterior chamber or department separated by a high partition, the lowest part of which is over the first bicuspid. Observe how the roots of the molars penetrate the antrum and hence how easy for an abscess at the apices of these roots to drain into it. In these cases the dense plate of bone forming the floors of the antrum is carried up over the apices of the roots, as for example this handkerchief when placed over this pencil forming a cone which in case of an abscess of this root draining into the antrum would probably be perforated at its apex. Suppose this first molar to be extracted to drain the antrum it would remain full of fluid to the level of the apex of this cone, while a perforation into the antrum through its buccal wall between the roots of the first and second molar would produce the desired result and save a valuable tooth. And right here

I must protest against the common practice of sacrificing valuable teeth for this purpose. It is not necessary, for the above operation is much better. This particular case was skiagraphed to determine the location of a piece of a needle which had been broken by the patient in the tooth and it was thought to have been forced through the apex into the tissue as it could not be felt inside the tooth. The skiagraph shows it plainly within the tooth. Notice the position of the lower part of the floor of the antrum in this next case (Fig. 5.) It is between the first molar and the bicuspid. This is of special interest because one of the bicuspids had never erupted and the patient had a deep seated abscess in the cheek with a fistula over the cuspid and into which a lead wire was placed for skiagraphing. The abscess had been previously diagnosed as coming from the missing bicuspid, but the skiagraph shows it to come from the lateral incisor, the apex of which is badly absorbed and its pulp dead while the suspected bicuspid has never formed.

The next (Fig. 6) shows another case of obscure antrum trouble which evidently comes from a putrescent root canal and abscess of the bicuspid. Notice how low the floor of the antrum is at its lowest part. These are only a few examples of antrum complications. Frequently the antrum becomes enlarged in a particular direction by the suppuration and by skiagraphing both sides at the same angles the extent of the absorption can be determined. By this means the exact location and boundaries of an abscess in the process resulting from putrescent pulps can be determined and after they are very obscure even though producing great disturbance as in this case (Fig. 7.) The patient had suffered for about three months from an obscure neuralgia and an examination of the teeth by different dentists re-

vealed nothing abnormal. Several skiagraphs were taken of the teeth on the side affected and this blind abscess was found on the first inferior left bicuspid which, when treated entirely and permanently, cured the neuralgia.

Sometimes these abscesses produce very extensive destruction of tissue, as for example in this case (Fig. 8) where the lighter area shows the extent of the abscess in the bone around the lateral incisor. There is no necessity for extraction in these cases. Of course, the abscess must have drainage and have the irritant removed and then the treatment is very simple. This case had been drained through the root canal which, as you see, left the abscess more than half full of pus all the time. The most dependent point is that marked X. The abscess was perforated at this point and thoroughly sterilized and stimulated and the root filled at once. The cure was rapid and perfect.

The location of the irritant producing these abscesses is often very hard to locate, as in this case (Fig. 9) where the light area shows the extent of the absorption of the bone caused by an abscess from diseased root. The abscess had its fistula beside the second bicuspid and was treated accordingly. The dentist in charge extracted the first bicuspid because it was tender to concussion, but finding it all right replaced it. This radiograph shows the trouble to come from absorption of the apex of the lateral and the case was treated accordingly by amputating the apex of the lateral root with excellent results. Of course, drainage was secured at the lowest point of the abscess. Nature soon fills in these large abscess cavities with new bone when the irritant is removed as you will see by a radiograph of this same case three months later.

Cleveland, Ohio.

TO BE CONTINUED.

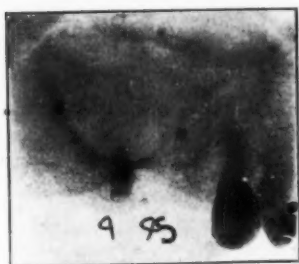


FIG. 1.



FIG. 4.



FIG. 2.



FIG. 5.



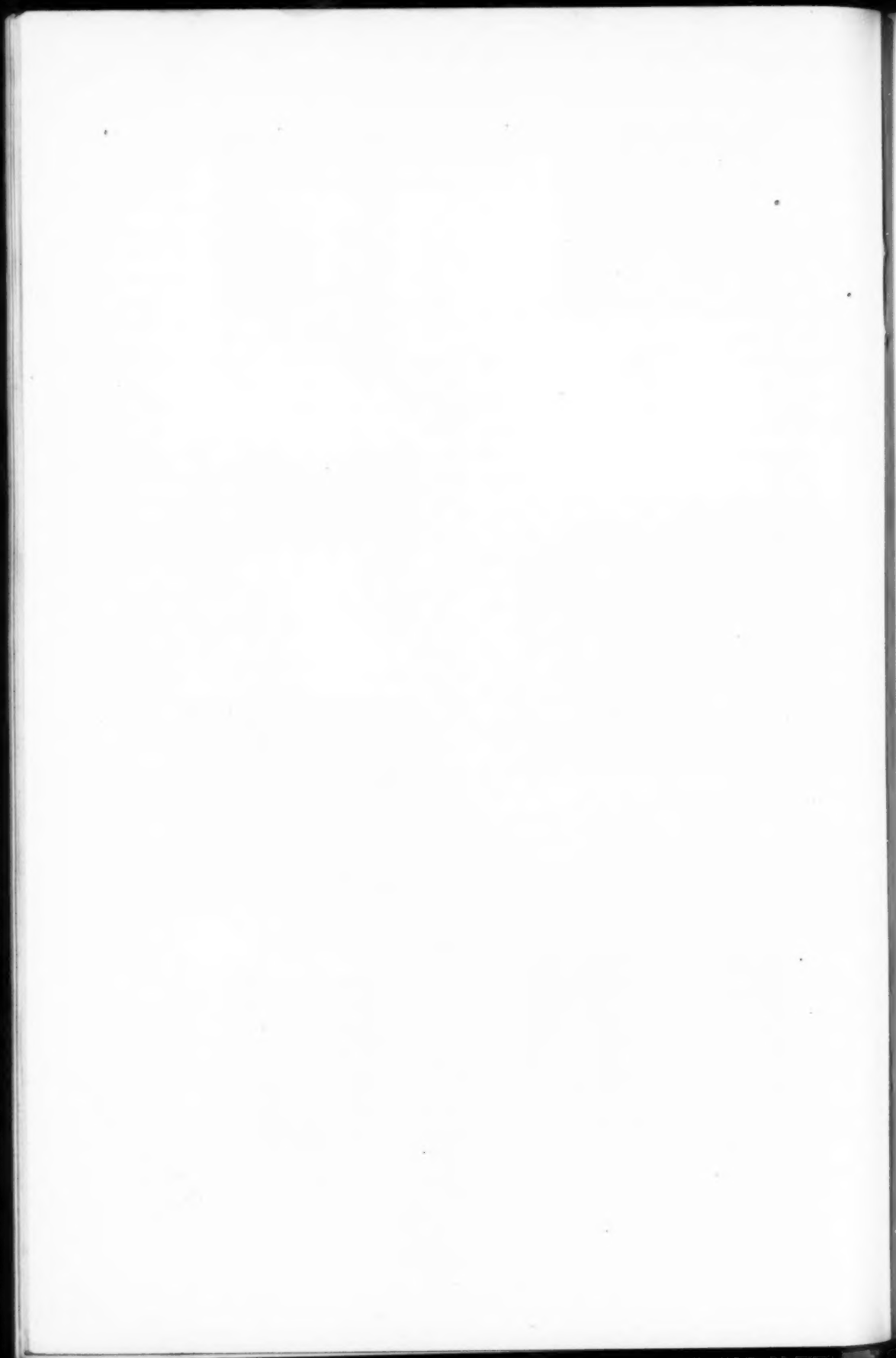
FIG. 6.



FIG. 3.



FIG. 7.



SHIELD FOR THE PREVENTION OF X-RAY BURNS,

and a

Dark Chamber for the Tube, Combined.

BY G. E. PFAHLER, M. D.,
Assistant Chief Resident Physician and Skiagrapher
to the Philadelphia Hospital.

The frequency of x-ray burns has been lessened in proportion to our knowledge of the causes producing them. Their

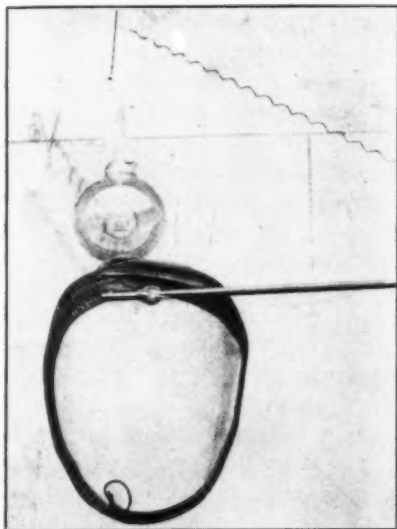


FIG. 1.

insidious onset and obstinate recovery, however, should induce the use of every possible means for their prevention.

For some time past the interposition of an aluminum shield, grounded by a wire to the steam pipe, has been recommended. In this paper I wish only to present briefly a simple and convenient method of applying this principle, which may be of interest to those doing much work in this line. This method, with a little modification, can surely be applied to any tube holder.

It consists of a sheet of thinnest aluminum, cut circular, ten inches in diameter, the cost of which is trifling. A hole one-half inch in diameter, is cut about one inch from the edge and passed

over the little clamp that grasps the horizontal arm of the stand. The washer having been filed sufficiently to allow for the thickness of the aluminum, is replaced and the shield fastened in the upright position in front of the tube. The shield may be bent convexly about the tube, as seen in Fig. 1.

It will now keep its relative position, no matter how the tube is adjusted, and needs no further attention from the skiagrapher. Being attached to metal, the stand itself needs only to be grounded by a wire to the steam pipe. Since this will now require no special attention from the operator, the shield will always be in use and thus protect the patient.

Should the skiagrapher desire to use the tube for therapeutic purposes, the thumb-screw is loosened and the shield allowed to drop downward as seen in



FIG. 2.

Fig. 2, which only requires a few seconds.

I find the fluorescent screen offers many advantages over the fluoroscope. It is less clumsy, and can therefore be more easily adjusted to the part studied, in its various positions. It enables a

number to see the same object at the one time, and gives the skiagrapher an opportunity to point out the different lesions as they are presented. This makes it especially useful for class demonstrations. Its use, however, requires a dark room. Daylight may be excluded by blinds, etc. The ordinary light from the tube may be excluded by attaching a piece of dark cloth, preferably silk, to the edge of the shield, just described, and bagging it over the tube by means of a draw-string, as seen in Fig. 1. This can be adjusted or dropped in less than a half minute.

The whole arrangement is so simple, convenient and inexpensive, that I feel justified in presenting it to the profession, with the hope that it will give others equal satisfaction.

Philadelphia.

IMPROVED X-RAY TUBES

It is reported that a Welsh electrician has so modified the x-ray tube the radiant matter will do the work desired for skiagraphy from one tube, while the other is too soft for any skiagraphic work, but acts as a modifier of the injurious "burning rays". It is probable that a method is adopted for conducting away wasting streamers about the active tube and there is nothing new in the principle, only in the method.

The Provost, Charles C. Harrison, of the University of Pennsylvania, at Philadelphia, has sent out an illustration of the new Laboratory of Medicine. This building is said to be the most complete for the purposes for which it is intended of any in the world. This structure, for this high purpose, is most timely, since the demand is fast growing for greater research in physical laboratories. This is the oldest Medical University in the United States and being richly endowed can afford to take the anticipation step.

INACCURACIES OF THE X-RAYS SO-CALLED.

Dr. W. W. Grant of Denver, Col., has been fortunate enough in a recent article to lay the blame on others for saying the x-rays is "inaccurate and unreliable." But the doctor shows decided leaning toward the prop of sand. The American Surgical Association, at its last annual meeting, in May, 1900, displayed the impulses of mediæval enthusiasm on subjects they did not understand or that seemed heretical. They resolved, by unanimous vote, that the "skiagraph is inadmissible as evidence in court because, being a picture of a shadow and not of the object, it is inaccurate and unreliable." Strange dark-age reasoning! While Galileo was teaching that the earth was round the conventions of the learned were casting nets and they said his light must be put out. While Savonarola was showing the iniquities of priestly practices the learned said his light must be extinguished, for we are good and know the way. While Jenner was advocating the certitudes of vaccination the conventions of the learned rose in unanimous condemnation. When McDowell announced a way for adding years and comfort to the life of woman Meggs, voicing the profession, said: "Death resulting from ovariectomy should be followed with an indictment for manslaughter." While the x-rays are being used without inaccuracies and with perfect reliability the learned associations representing the surgical branch of American practice cry the cry of darkest days. It seems strange that no one in all this convention knew or, if he did know, dared to express the fact that throughout this entire land the courts have admitted skiagraphy as evidence. More than this: in some instances the picture has been ordered shown to the jury. These decisions have been made favorable to the x-rays by all grades of

courts, circuit, district and United States courts.

This divergence was prompted by the quotation in Dr. Grant's article of the action of the American Surgical Association.

We are very glad to know that Dr. Grant is using the x-rays. If he will use the well-known devices for correcting human inaccuracies, the x-ray picture he will get in the future will be correct and reliable. There is another point that should be considered. Every x-ray picture should show the thing sought in unmistakable clearness. If it fails in this it is a poor thing to show. This kind of a picture is a powerful argument in favor of the so-called inaccuracies. Writers upon this subject do well to use just such evidence. Dr. Grant's skiagraphs have this taint. It would be immeasurably better to write the article without the picture. But one thing more for them who desire to do good work. The Doctor says that he had a case of fracture of the thigh that had no more than three-fourths of an inch shortening. The father of the child saw the skiagraph and exclaimed that it was a "bad jumbled up leg." He saw the callus and took that for overlapping of the fragments. Now the Doctor wants to call particular attention to this apparent overlapping. He says: "The distinction is highly important. Imagine the influence of such a picture on patient or jury." Did it ever occur to the doctor what influence dark extravasation of blood beneath the eye might have on patient and jury? It is quite probable that there would be no contention over an explanation of the apparent injury in either case. Do not let apparent bugbears haunt us.

Now is the best time for subscribing for THE AMERICAN X-RAY JOURNAL—\$3.00 a year.

THE X-RAY IN QUACKERY.

The Journal of the American Medical Association contained an editorial upon the above subject. Surprise was expressed that quacks had not long since taken up this implement, but submitted an explanation that it was due to the requirement of some knowledge of electricity before the x-rays could be used. The article implies ignorance of science and letters on the part of quacks. This thought is in accord with the old definition of the word. Medical laws are quite severe throughout the States and yet quackery is, if possible, more aggressive now than formerly. If one acquainted with the subject and correct uses of the x-rays will carefully look over the literature of the subject, they will see the inroads made by this class in the field of this most important branch of our profession. It is not always the one who employs the columns of the lay press to picture his assumed skill that injures the fair name of doctors. This is a class by themselves. They allure a class that seek them, and if not found do not employ anyone. They are not always ignorant either, but pervert righteous calling into scheming. They have always existed, and they are here to stay. Medical laws have improved their standing, because besides flaunting the sheepskin they gild the frame about their State Board license. They are made in law and equity our equal. It seems now that some tendency to draw nearer together actuates the entire practice. If the action of "professional" writers is considered this is true. Taking the definition of the word as is assumed by the editorial mentioned ignorance has prompted more articles upon the x-rays than quacks, or, in other words, ignorance has even dared to write. See the articles by learned professional men upon the inaccuracies of the x-rays. It is absolutely known that

there is no such thing as inaccuracies of the x-rays. These inaccuracies are wholly the errors of the operator. Do we have inaccuracies of the law of gravitation? Of reflection? Of magnetism? Of radial energy? When these fixed laws of nature are misunderstood then the would-be-wise sage of maturity leaps into the medical press, with the credit of his former bearing, and affects the professor's part. They cut for bullets, and failing to find them under the triangles, wires and fluoroscope, see a new vista and proudly assume the role of the world's teacher and tell how careful we should be in depending upon what we see. What an inglorious assumption. See the x-ray pictures so frequently used in journals. They tell nothing. Many are perfectly blank, black blotches, without detail and without evidence of the description. No other kind of a picture purporting to show something would be used by an editor. Why, then, these? They should be equally delineative as other pictures are.

These efforts to do something or say something upon a subject wholly at variance with the education of the writer is quackery. A writer of a book wants a subject written by some well-known man in the profession. He assumes the new science. He has absorbed the literature and written upon all subjects of medicine and surgery. The x-ray is new and has the sanction of the wisest men and is revolutionizing methods of diagnosis. It is an honor to go into an accredited work as author of this subject. The task is undertaken and how shamefully it is handled. These books are not written for novel reading but for land-marks for the practitioner. He who assumes the role of such a writer should know the subject whereof he writes. Soever wise he may be in all other domains, if ignorant in this and writes as a teacher he is a

quack. The medical profession should awaken to the realization of the responsibility the subject bears to us and question seriously every writer who can tell of the faults of the x-rays. Let him answer to his own faults first. Look to himself and see if it is not the self at fault and not the x-rays. Then we will begin to standardize uses of the rays and raying will become as accurate in the hands of the profession as they are free from inaccuracies. The consummation of this knowledge by us leaves those who would infringe upon its moral application the task of study and thought and practice, all of which when acquired is a more profitable practice than quackery. Thought in science is honest and honest thought leads on to honest practice.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

It is announced that the dates of the next meeting of the Mississippi Valley Medical Association have been changed from the 10th, 11th and 12th, of September to the 12th, 13th, and 14th of September. This change has been made necessary because the dates first selected conflicted with another large Association meeting at the same place.

The meeting is to be held at the Hotel Victory, Put-in-Bay Island, Lake Erie, O., and the low rate of one cent a mile for the round trip will be in effect for the meeting. Tickets will be on sale as late as September 12, good returning without extension until September 15.

Those desiring to read papers should notify the Secretary, H. E. Tuley, 111 W. Kentucky St., Louisville, Ky., at an early date.

Dr. John A. Wyeth, of New York City, was elected President of the American Medical Association at St. Paul. The Association, we are glad to note, gave much attention to the x-rays.

SEEK AND YE SHALL FIND.

Dr. J. William White, in the *Post Graduate* for January, 1901, has made "conclusions" and enumerated seven aspects into which, according to his opinion, the whole realm of x-ray uses fall. However, it is possible that Dr. White summarized from the "Report of the Committee of the American Surgical Association on the Medico-Legal Relation of the X-Rays." That so cogent and precise conclusions should have been agreed upon in this highly scholastic, dignified body is not surprising. Of course, if this body of thinking men had used the x-rays more and studied the technique with apparatus and accessories one would have seen divergence in these "conclusions" of Dr. White's. We have the evidence from men using the x-rays, that are themselves eminent in the surgical field, that there was "lukewarmness of the American Surgical Association at that meeting upon this most important subject." Yet, we are confronted with conclusions. First, the routine employment of the x-ray in cases of fracture is not at present [but when, Ed.?] of sufficient definite advantage to justify the teaching that it should be used in every case." What could be the reason for calling attention to "every case." We do not have our attention called to the "definite advantage to justify" the use of anæsthetics in "every case." This sentence has more of the twang of verbosity than correct teaching, or something of the suggestion of confusion.

The first sentence of conclusion 2, has the same odor. In reference to the skull, the writer says the results have not been "thoroughly satisfactory." I have never seen anything from the surgeon wherein he alleged "thoroughly satisfactory" results from the use of the trephine. Have we a bugbear for x-ray, but none for the other implements of the surgeon's armory?

Conclusion 3, says: "The appearance of deformity may be produced in any natural bone." This conclusion, if I understand the writer, is abso'utely impossible. Yet, it is certain that all radiographs are deformed pictures. This paradox has an explanation: In the former case, take a shaft, for instance, it is impossible to produce the appearance of a fracture. This statement of deceptive fractures has been often written. A mere tyro would not look to the plate for waves, to backing up rays, causing shadowing from something beneath the plate or something over the bone. When the deformity exists, it may be by intention improved or distorted, but in no way in normally radiographing can a solution of continuity be made that is not detected. But, "expert surgical interpretation" is not free from error. Then why should the x-ray bugbear overcaution the surgeon if it is "frequently misleading."

These "conclusions" go on until seven have been exhausted. They are all of the character of the first and should be read with great latitude. In reference to the location of foreign bodies the "conclusion" is very misleading. If the foreign body can be seen it can be located mathematically. If the surgeons of the American Surgical Association would study visual uses of the fluorometer with the same ardor they study rounding sentences, I am sure in every such case there would be no error in localization of foreign bodies.

In reference to conclusion 7, wherein the "strictly legal standpoint" is considered, I am glad to say that in no instance in any court in any state, has the x-ray picture been denied its proper place if the physician was prepared to prove the accuracy of his radiograph. No one can safely go into court with a radiograph and allege its correctness unless he has used means to correct divergence by position and normal diver-

gence of the x-rays in the cited instance. If you have done this and are familiar with your subject, you can use familiar phrases and terms understandingly to the judge and jury, which effectually removes all objections.

If these frightened advocates of scholastic certitudes upon the inaccuracies of the x-rays, would read and practice the teachings found in *THE AMERICAN X-RAY JOURNAL*, their efforts would not be in vain. The lasting glory of our profession, medicine and surgery, depends upon those who teach correctness of diagnosis and not upon those who teach inaccuracies of personal work without a remedy. Seek and ye shall find.

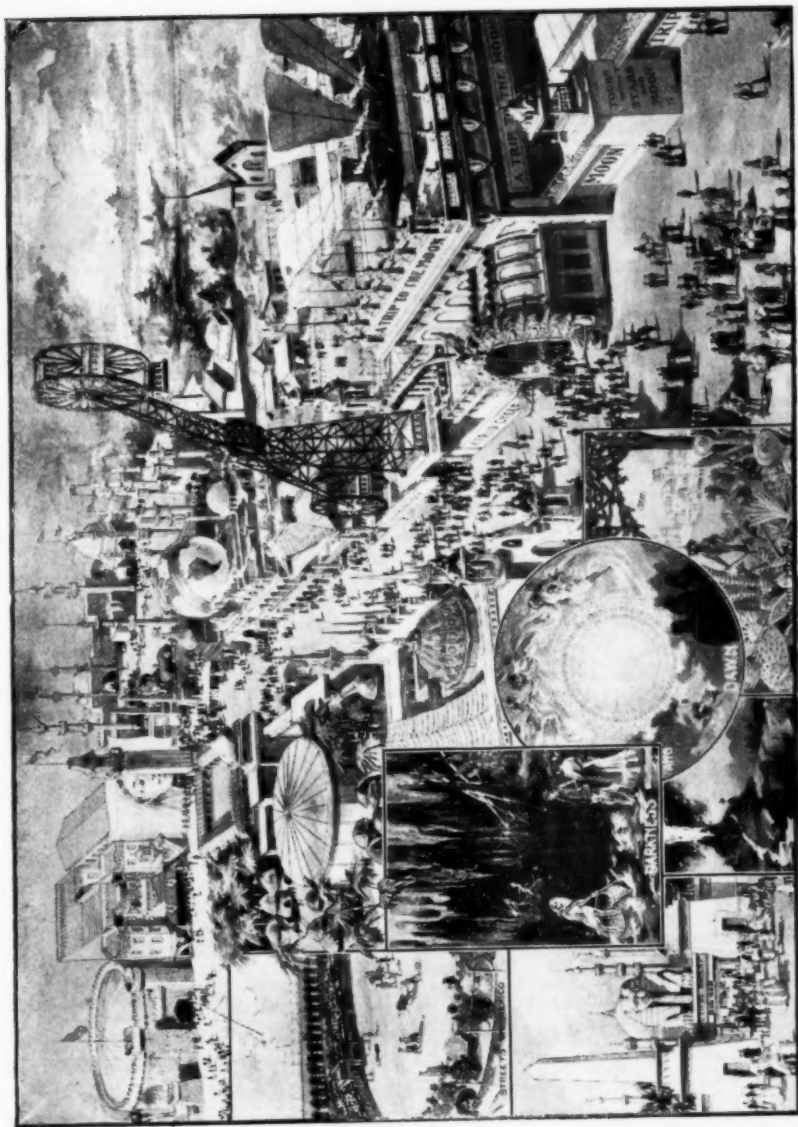
TRIGONOMETRY IN X-RAY WORK.

Dr. Egelston, of Kansas City, reports the findings of trigonometry essential to x-ray localization. This is a good thing, but applies essentially to those cases where visual uses of the fluoroscope are impossible. Where photographic methods are necessary the U. S. Surgeon General has adopted the method of Mackenzie Davidson, properly called localization by multiple observation. A more simple method and recently put in practice, is that of Prof. M. L. Pence, of the State College of Kentucky, reported in the *AMERICAN X-RAY JOURNAL* for May. This method meets every want, but requires some study of the subject or a previous knowledge of higher mathematics. In all cases where the object can be seen with the fluoroscope the fluorometer is incomparably more practicable than any other.

Dr. Walter Byron Scott has a lonesome time of it, as he is the possessor of the only static machine in his part of North Dakota. The citizens of Crystal, the home of the doctor, should feel proud of a physician in their midst that takes advanced steps for the relief of suffering humanity.

FORGERIES IN ART PROVED BY X-RAYS.

Several eminent authorities in the art have been interviewed upon the genuineness of pictures and the part x-ray has in detecting forgeries. It is a well known fact many paintings are sold nowadays, upon which very clever signatures are made of some one of the old masters of art. An old painting is valuable in a monetary sense in proportion to the fame of the artist who did the work. The subject has awakened a good deal of interest lately in Berlin, not alone for the purpose of detecting fraud of the signature, but to bring out invisible or lost signatures. Herr Paulus, manager of the Schuite Art Gallery, said: "It also depends upon how the signature was executed. If in gold letters the x-rays would not go through them. Many painters simply scratch their names on a picture. If gold monograms, such as that of Durer, have been covered by varnish, which deepens in color by age, they can generally be read by turning on a bright light." Professor Doepper said: "Photographs render great service in detecting forgeries because the camera sees better than the human eyes, greater service can be rendered by the x-rays." Professor Hauser, picture restorer at the Royal Museum, said: "If a picture has been so well retouched that it can be seen by the naked eye, it can be proved by means of x-rays, for the retouching and added colors as a rule, contain other material or other combinations, and these are variously affected by x-rays. I have seen the monogram of Durer brought to light by x-rays, but I nevertheless regard the picture as a clever forgery." Herr Hugo Schmidt expressed himself in the same line. Herr Schulz Haucke, who was one of the first to apply x-rays to testing precious stones, said: "If the picture is on silk, papier mache or wood x-rays are of value, but not when the picture is on metal."



THE MIDWAY, PAN AMERICAN EXPOSITION. BIRD'S EYE.

BULLET IN HIP JOINT.

We reproduce the written words of Dr. C. D. Harrington upon the above subject, which appeared in the *North-western Lancet*, because it so fairly represents the uncertainty of practice which finds exactness only when the x-ray is properly used.

The bullet was a 38 calibre and fired at a distance of ten feet. The doctor says:

"The bullet entered on the anterior side directly over the femur, at about the junction of the middle and lower thirds. The leg was slightly advanced and the body erect. The shooting occurred Oct. 29, 1898, at 10 p. m. At 11 p. m., the bullet was probed for by a local doctor, but it was not located. The next morning Oct. 30, the patient walked three blocks without aid to the doctor's office, and an attempt was again made to locate the bullet by probing, which was unsuccessful. The patient then went to bed. The next day he came to Minneapolis, a distance of five hundred miles. November 1, he went to St. Barnabas Hospital. He was kept in bed for two weeks, then an attempt was made to walk, but he was unable to do so. There was no pain until the morning after he was shot, when it became severe, radiating from the knee to the hip joint. It became more severe while in the hospital. The leg was kept in extension three weeks. The bullet was supposed to be in the pelvis. On November 25, an x-ray examination was made, but the bullet was not located. The patient was kept in bed until February, 1899. At this time he had changed doctors and they had decided to operate, which they did at this date.

"An incision was made over the point of the entrance of the bullet. It was found that the anterior cervical nerve had been severed. This was sutured

with fine silk, but the bullet was not located. The wound was closed, union taking place in a few days. In a short time the galvanic current was applied. At the end of April the patient was able to walk with the aid of crutches or a cane. Up to this time he had been unable to use his leg or to put on his shoes without help. He had pain more or less severe until June 12, 1899, when an abscess which had been forming, broke through the incision which had been made for suturing the nerve. More or less pus kept discharging from the wound until September, when he was brought to my office, being able to walk by using a cane.

"Upon examination, not much motion could be made in the joint; foot slightly rotated inward; flexion, adduction and internal rotation caused some pain, which was not felt so much on abduction and external rotation.

"From the examination I concluded the bullet was in the hip joint. An x-ray examination was made; an 8x10 inch plate was placed under the hip joint, with patient in recumbent position; the Crookes tube was placed directly over the brim of the pelvis at about eight inches distance from the body; fifteen minutes' exposure. Upon developing the plate, the bullet was located in the hip joint, lying in the acetabulum in the anterior and lower aspect. An operation to remove the bullet was decided upon.

"On November 2, a regular Parker's incision for the excision of the hip joint was made, starting about one-half inch below and external to the anterior superior spine of the ilium downward and slightly inward for two or three inches, going between the tensor vaginal femoris externally, and the sartorius internally, and deeper between the gluteous minimus externally, and the rectus internally. Owing to his being a very muscular man this was found to be a

difficult task. An opening was made where the old abscess had pointed, and with a small flexible probe, the sinus was followed down to the joint, by careful dissection, with the probe as a guide, when within a few inches of the joint, by manipulating the probe, a metallic click could be felt, locating the bullet. The opening in the capsule was enlarged to admit a medium-sized forceps, and the bullet was loosened from its bed by a dull curette, and extracted by forceps. The bullet had been slightly battered on the end. Considerable damage had been done to the head of the femur, so that all debris was scraped out and the wound packed with iodoform gauze as a drain. The patient was able to leave his bed at the end of two weeks, and was soon able to walk. In a letter dated April 2, 1900, the patient reports that after leaving the hospital he had considerable pain about the hip joint, radiating at times toward the knee, but he was able to walk without the aid of a cane, and the motion in the joint was gradually increasing.

"P. S.—Since this article was published, the patient called at my office and reported that he had been working all summer as a bridge carpenter, pain had not entirely left, but he had a good and useful joint."

BECQUEREL RAYS.

Reports are still being made before the French Academy of science of "radiant metals." Pitchblende is closely allied to titanium, but it is from the former that the new metal is obtained. The two other metals, polium and radium have radiating power far more intense than uranium.

The Librarian of Congress, Washington, D. C., greatly desires to have Vol. 6, No. 1, of the AMERICAN X-RAY JOURNAL. If any of our readers having this

number can spare it we will appreciate their kindness in sending one to us or to the Librarian of Congress, Washington, D. C.

ROENTGEN SOCIETY OF THE UNITED STATES.

ANNOUNCEMENT OF COMMITTEE ON ARRANGEMENTS.

The Committee on Arrangements for the next meeting of the Roentgen Society of America have secured, through the courtesy of the Dean and Faculty of the University of Buffalo, the use of as much of its building as we may require. The location is central, the room ample and on the ground floor. The date of the meetings will be Sept. 10 and 11 at the University of Buffalo, Buffalo, N. Y.

The following rules and regulations in regard to exhibits have been adopted by the committee: Applications for space should be sent as early as possible to R. C. Adams, Secretary, drawer No. 963, Buffalo, N. Y., with particulars as to character of exhibit and space needed.

Exhibits may be consigned to Louis Staffeldt, care University of Buffalo, and all express and freight charges must be pre-paid. Owners of goods sent by freight who wish them transferred to place of meeting on arrival, must notify the secretary and send him the pre-paid bills of lading. The cartage will be at expense of owners.

Exhibits are wholly at risk of owners, and should be unpacked and installed by them not later than Sept. 7.

Alternating current 104 volts, single phase, 60 cycles, and direct current 110 volts, will be available, also dark room for photographic purposes. All exhibits must be removed by Sept. 13.

EDGAR B. STEVENS, Chairman.
ROGER COOK ADAMS, Sec., Drawer 633.
DR. JAMES W. PUTNAM,
DR. ELMER E. STARR,
DR. RENNICK R. ROSS,
Committee.

ROENTGEN SOCIETY.

The following notice, made by Professor Monell, Chairman of Committee on Standards, appeals to all persons whomsoever that have any knowledge on this subject; and commends itself especially to medical men having interest in the attainment of more knowledge. Write to Dr. Monell and give expression on one or more of these subjects.

COMMITTEE ON STANDARDS.

DEAR SIR:

To promote uniformity in results and to secure accuracy and give legal value to the evidence of x-rays, it is necessary to standardize methods of doing the work. To this common benefit all x-ray experts are asked to contribute for the general good of the cause. You are therefore invited to write me your best suggestions on such of the following points as you can offer advice upon: A standard uniform nomenclature for the principal terms required.

A standard form of record—blank for briefly filing reports and indicating all essential details of the exposure.

Standard of efficiency for tubes.

Qualities which a standard x-ray photographic plate should possess.

Qualities which a standard x-ray fluoroscope screen should possess.

Standard handle for all x-ray tubes so they will fit a standard tube-holder.

Standard tube-holder to fit uniform standard tube-handle—adjustable, rigid, holding tube without vibration—and convenient for general use.

Standard position of tube for correct shadow.

Standard distance of anode from plate for standard x-ray exposures.

Standard exposure times for chief parts of the body with a standard radiance.

Standard measure of different degrees of x-radiance.

Standard "skiameter."

Standard x-ray examination table, adjustable for all parts of the body.

Standard method of posturing each part of the body for a standard picture.

Standard means of fixing parts immovably during a standard exposure.

Standard complete definition of what a "standard exposure" should be. (Of medico-legal value.)

Standard land-marks to be pictured in the negative as inherent proof that a standard exposure was made—(a medico-legal necessity).

Standard method of localization for both "skia-graphy" and "fluoroscopy," which shall be the most practical, quick and uncomplicated.

Standard technique for picturing correct relation of bones and joints.

Standard technique for picturing details of any kind sought.

Standard technique for picturing contrast for diagnosis of soft parts.

Standard technique for picturing the different calculi, vesical, renal and gall-stones.

Standard technique for x-ray dental diagnosis.

Standard technique for x-ray eye work.

Standard technique for x-ray heart and lung diagnosis.

Standard treatment of plates to develop uniform results.

A standard leaflet of brief directions which the physician who does not do his own developing can send with his plates to any fair photographer as a ready guide to proper treatment of an x-ray negative to secure the picture.

Standard technique for therapeutic administration of x-rays with proper precautions.

You are invited to supply any omitted detail which you believe should be standardized. Will be pleased also to have you select one or more features of the above list in which you have had special experience and make a careful report upon what you regard as the proper standard to officially adopt. A reply is desired in about two weeks. In offering suggestions about standard working methods, postures, special devices, apparatus, etc., it is desirable that you send explanatory camera-photographs illustrating the details for comparison. Thanking you for your professional co-operation in behalf of the committee, I remain,

Fraternally yours,

S. H. MONELL, M. D.,

Chairman of Committee on Standards.

47 West Twenty-seventh street, New York City.

Dr. Carl Beck, of New York City, exhibited a class of skiagraphs before the American Medical Association, at St. Paul, this month, together with an intelligent description of their diagnostic worth. In speaking of this, it has become a by-word to say "the x-ray workers were in it this time." We are told that those who have heretofore branded their own brows with the clause "inaccuracies of the x-rays" are now tumbling over each other for an escape from the stain.

ROENTGEN SOCIETY OF THE UNITED STATES.

Committee on Scientific Research.

The above committee consists of Mr. H. Westbury, Harrison, N. J.; Dr. John B. Murphy, 3505 Michigan avenue, Chicago, Ill.; Dr. A. Clifford Mercer, Syracuse, N. Y.; Mr. Elihu Thompson, Lynn, Mass.; Mr. Nikola Tesla, 46-48 East Houston st., New York City. Members of the committee and all other persons interested in this subject are earnestly requested to correspond with Mr. H. Westbury and co-operate with him in this work. The importance of a full report from this committee to the Roentgen Society in Buffalo September 10 and 11 must be fully appreciated. Since no member of this committee has refused to serve, and since it is known that every member has more than local prominence in scientific research the professional world are expecting much useful matter. While so much is expected from the committee, we cannot refrain from urging others to write to them and especially to Mr. Westbury, giving additional suggestions and information from various standpoints of individual thinking.

DETECTING AND EXCLUDING RENAL AND URETHRAL CALCULI.

Leonard has examined 136 cases suspected of having renal or urethral calculi. Of this number 19 cases had urethral and 17 cases renal calculus. From this he concludes (1) that both the negative and positive diagnoses by the Roentgen method are accurate and valuable; (2) that urethral calculus is much more common than has been supposed, constituting about 50 per cent of all cases of calculus; (3) that it is impossible to arrive at as accurate a diagnosis of calculus by other methods; (4) that this method is comprehensive, and aids operative intervention by localizing all

calculi and excluding calculi from the other kidney; (5) that non-operative treatment, without a negative diagnosis by this method, is irrational and dangerous in cases that are at all suspicious; (6) that this method is precise, because its results are mechanically produced, but that accuracy in its employment and care in reading the results are necessary to the avoidance of error; (7) that the data obtained by this method make non-operative conservative treatment rational in cases of small calculi low down in the ureter, which can be expected to pass; (8) that the negative diagnosis does not preclude exploratory nephrotomy, but does make unnecessary the actual incision into the kidney in search of calculi; (9) that dilatation of the ureter with bougies, as has been practiced in the female, may be employed in the male by utilizing a suprapubic cystotomy wound to guide the instruments from the urethra into the ureters.

GOOD X-RAY PICTURES.

The *Annals of Surgery* for May and the *Inter-State Medical Journal* for the same month contain reproductions of some of the skillful x-ray pictures made by Dr. J. Rudis-Jicinsky of Cedar Rapids, Ia. It is a relief to see these excellent radiographs printed in these high-grade journals. If nothing less descriptive than these were ever allowed in medical journals it would mark an era of journalistic evolution and aid materially interest in x-ray work. Poor pictures or those that tell nothing to the untutored are humiliating, disgusting and retrograding, while properly made pictures teach and encourage this greatest diagnostic means known to the profession of medicine.

X-RAY AS AN ANALGESIC.

Dr. Stembo, of Wilna, Germany, reports a number of cases of satisfactory

action of the x-rays in neuralgia. He exposed the parts to the rays from five to ten minutes at a time and the sittings numbered about ten.

"RUDOLF VIRCHOW FUND."

To the American Medical Profession:

On October 13, 1901, Rudolf Virchow will be eighty years old. When he completed his seventieth year a fund was started in his honor to enable the great master to facilitate scientific research by establishing scholarships and by encouraging special medical and biological studies. Contributions to that "Rudolf Virchow Fund" were furnished by those in all countries interested in progressive medicine as an homage to the man whose name is always certain to arouse admiration and enthusiasm.

In Berlin a large committee, containing among others the names of A. Bastian, V. Coler, A. Entenburt, B. Fraenkel, O. Israel, Fr. Koenig, C. Posner and W. Waldeyer, has been formed to call for contributions, which are to be added to the original "Rudolf Virchow Fund," so as to increase its efficiency. The committee expresses the opinion that in no better way, and in none more agreeable to the great leader of modern medicine, can his eightieth birthday be celebrated, and ask for the sympathy and co-opera-

tion of all those engaged in the study and practice of scientific medicine all over the globe.

The undersigned have formed a sub-committee for the purpose of making the American profession acquainted with the intentions of the Berlin committee, and urge their colleagues to participate in honoring the very man who has done more, these fifty years, than any other to make medicine a science and international.

Subscriptions should be sent to their secretary, who will receipt therefor.

CHARLES A. L. REED,

President of the American Medical Association.

HENRY P. BOWDITCH,

President of the Congress of American Physicians and Surgeons.

WILLIAM K. WELCH,

Johns Hopkins University.

ROBERT F. WEIR,

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A. JACOBI,

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LAXATION IN CONSTIPATION.

BY J. A. RENE, M. D., WEST SUPERIOR, WIS.

The successful treatment of constipation does not consist in simply momentarily relieving the overloaded intestinal organs, because some of the pathological conditions co-existing may persist even after this result has been obtained.

The fact that there is an intimate association between the intestinal and cerebral functions was early recognized by the ancients—a fact that shows the need of attending to the cerebral disturbances while correcting the pathological conditions of the gastro-intestinal tract.

The habitual use of purgatives is not to be encouraged, as it only increases the disability which they are intended to remove; and therefore it is essential that the treatment should be one aiming at permanent results as well as relief. And for that reason it is very often necessary to combine drugs that will not only relieve the constipation but also cure the other pathological conditions which might have been the primary cause of the constipation or have been brought about by the constipation itself.

Of late years many preparations have been placed at the disposition of physicians, and some of these preparations are certainly scientific combinations. Most of them contain such splendid remedies as belladonna, aloes, cascara, etc., but of all the recent preparations which have come to my notice I have found the Laxative Antikamnia & Quinine Tablets to be the most efficacious in relieving cerebral disturbance, as well as curing the intestinal trouble.

A close study of this combination shows that it is a tonic-laxative, analgesic and antipyretic—and its administration in certain cases is sure to be followed with excellent results. For instance, in the sequelæ of typho-malarial cachexia, when a gentle and safe laxative combined with an anti-periodic is required, I have found this preparation of the utmost value. The co-operative or synergistic properties of these ingredients will readily commend themselves to the profession.—Chicago Medical Times.

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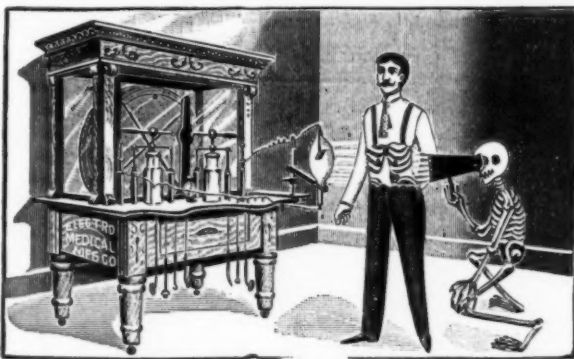
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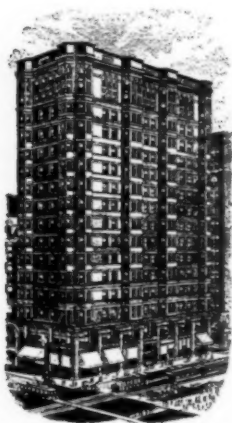


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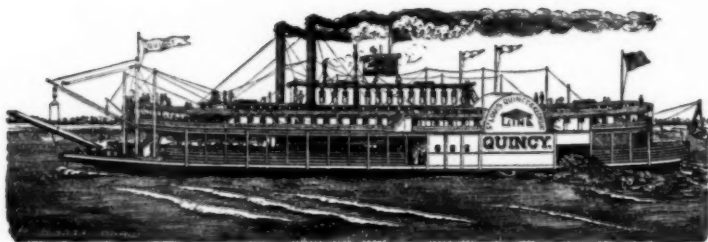
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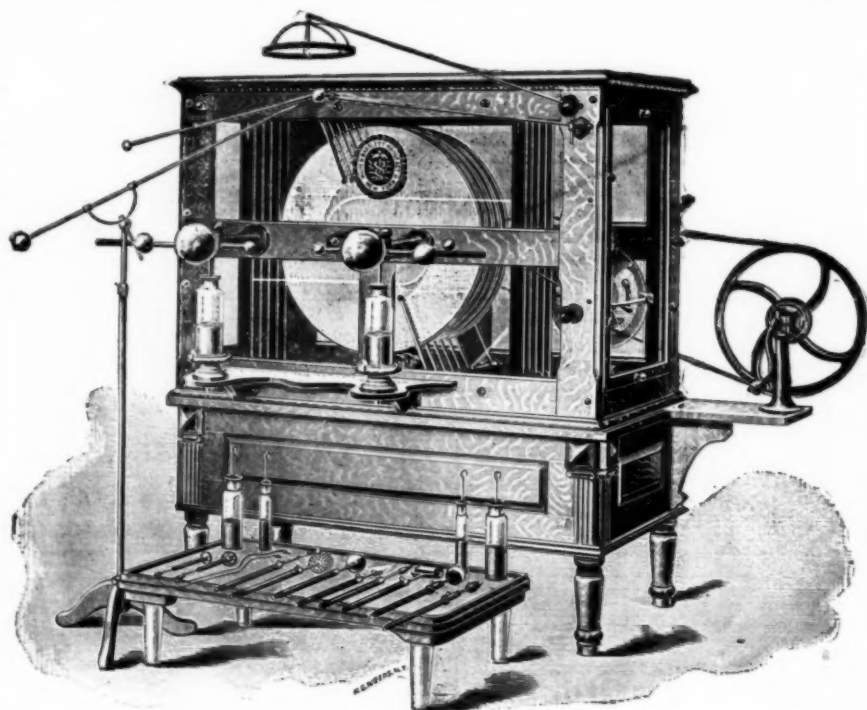
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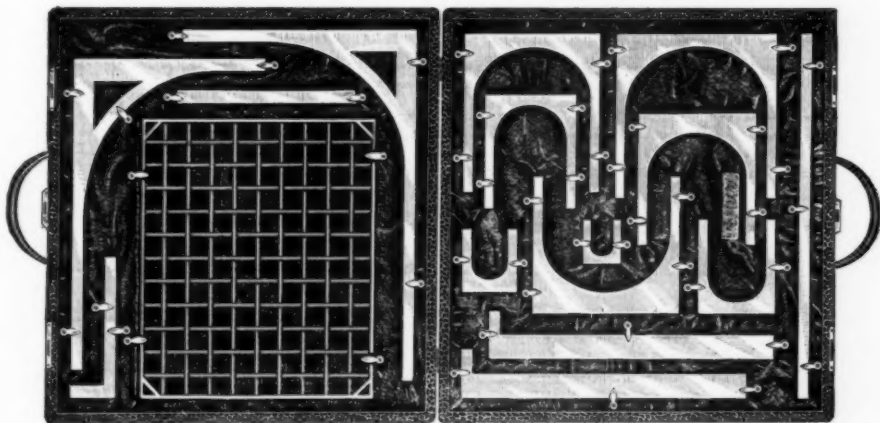
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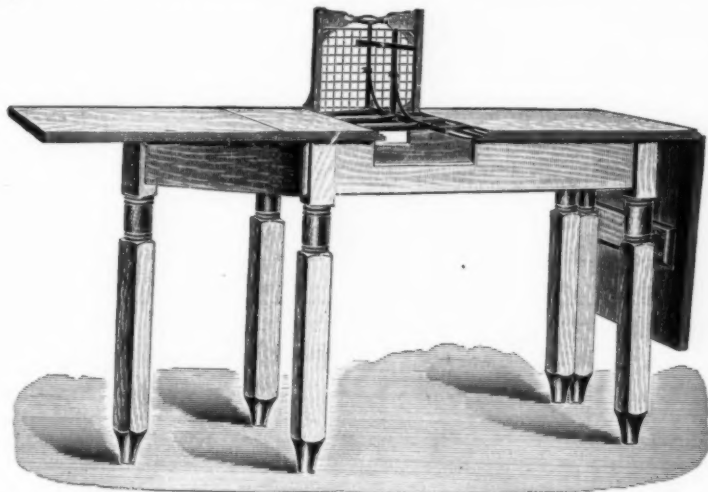
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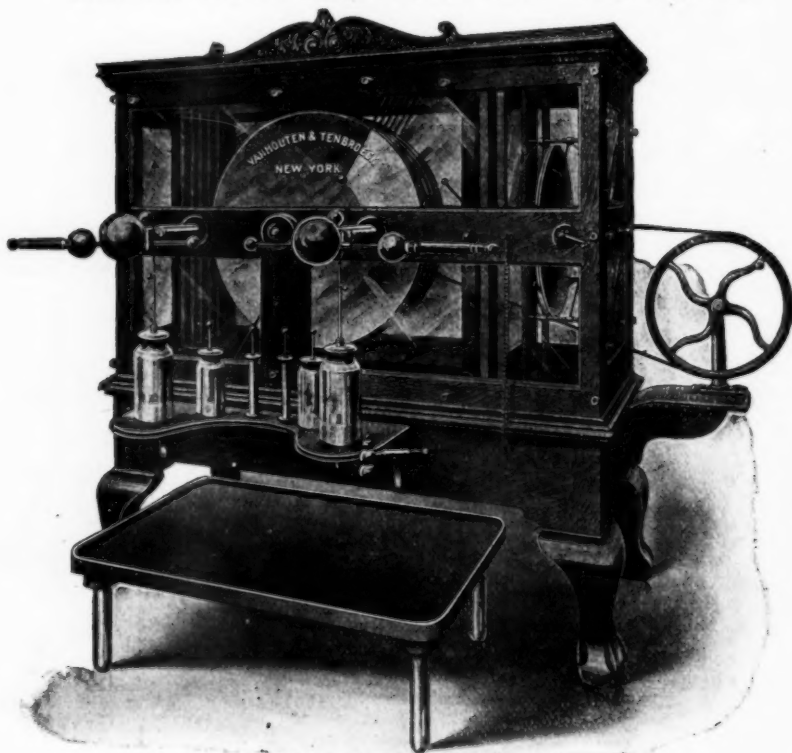
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